

1. RESTUNA. MAIL A FAX TO HUNTER INC. AND ASBESTOS TESTS IF THE CONTAMINATED AREA HAS BEEN IDENTIFIED BY EMPLOYEES.
2. IF YES NOTIFY THOSE PEOPLE TO GET A PHYSIC & EXAMINATION AS RECOMMENDED BY DOCTOR J. BUCKEY.
- 3.ABEL THEM WHICH ARE EQUIPPED WITH ASBESTOS SIGNS OR EQUIPMENT.
4. INITIATE CLEANING PROCEDURES.

ASBESTOS SURVEY

W.R. Grace-Acton Facility

C.C. D. SAURETTE
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PREPARED FOR:
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PREPARED BY:

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10 Lewis Street
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October, 1988
HES #554

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R002194

1. RESTUNA, DAVE SAURETTE, J. BUCKEY & GRACE
GAUDRY TO HUNT UNION EX. DOWD AND
BREKIN PLEAD & ANSWER MY QUESTIONS -
EXPLAIN PLDN & ANSWER MY QUESTIONS -
2. REINSTATE THAT THIS PROFESSIONAL ACTION
HAVE A LEGITIMATE COMPLAINT. W.R. GRACE
HUNT DO THE BEST WE CAN TO "ASSURE"
THEY DON'T HAVE ANY PROBLEMS WITH THE GOVERNMENT
F & AHS:

1.0 INTRODUCTION

Hunter Inc. was retained by W.R. Grace to perform an asbestos survey at the Acton Facility, Acton, MA on October 13, 1988. The survey was authorized with the following in mind.

- o Identify non-friable and friable asbestos-containing building materials. **NOTE:** Friable is defined as the ability to reduce the asbestos to a powder under hand pressure.
- o Identify locations of these materials.
- o Define the physical condition of asbestos-containing material, referenced to location.
- o Develop recommendations for proper asbestos abatement activities.

This asbestos hazard assessment was performed by Mr. Michael Matilainen, Hunter's Senior Industrial Hygienist. The findings of this effort are reported below.

2.0 SURVEY PROCEDURES AND ANALYTICAL METHODS

The survey procedure consisted of a visual evaluation of exposed building materials (ACM). Where suspect materials were encountered, bulk samples were collected in accordance with standard sampling procedures.

Samples were transmitted directly to the Hunter laboratory and analyzed by Polarized Light Microscopy (PLM) in accordance with the Environmental Protection Agency (EPA) "Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples." **NOTE:** Hunter laboratory is a participant in the EPA Interim Asbestos Bulk Sample Quality Assurance Program.

All data on the attached table is shown in relative percentages. The EPA defines asbestos-containing materials as those containing a concentration of greater than 1% asbestos.

3.0 DISCUSSION

Survey test results show that 15 of 25 samples tested positive for asbestos. These materials were found on

- o Exterior and interior transite siding
- o Floor tiles
- o Pipe, duct, oven tank and boiler insulating materials
- o Residual surface contamination

See attached Table - Test Results

ACM was evaluated and rated based on the following parameters.

- Good condition - ACM has low friability and has no damage or deterioration,
- Fair condition - ACM is friable and is slightly damaged or deteriorated,
- Poor condition - ACM is highly friable and severely damaged or deteriorated.

The following section shows specific information regarding ACM found throughout the facility.

NOTE: Factors such as the accessibility and planned use of the area must also be considered in choosing an abatement plan.

<u>Location and Type</u>	<u>Condition</u>	<u>Recommended Abatement Method</u>	<u>Quantity</u>
3.1 <u>Battery Separator Warehouse (BSW)</u>			
3.1.1 Impregnator Ovens Surface Contamination 20% chrysotile	Poor	Remove Surface Clean	10-20 S (Square Feet)
3.1.2 Impregnator Ovens Contamination on floor below	Poor	Remove Surface Clean	Actual Material Surface Clean 5 S 100 S
3.1.3 Southeast wall of floor below water tanks 25% Amosite	Poor	Remove Surface Clean	Actual Material Surface Clean 1 S 5 S
3.1.4 Laboratory 9" x 9" floor tile 5% Chrysotile	Poor	Remove	300 S
3.1.5 South end Bldg. Cork pipe insulation 10% Chrysotile	Fair	Remove or repair	150 L (Linear Feet)
3.1.6 Exterior roof & Transite -On walls & roof -NE & NW Corners Debris on Ground -On Pallets 70% chrysotile	Fair Poor Fair	Remove if demolished Remove material and 1" of dirt Remove	70,000 S 20 S Several Pallet

3.1.7 S.E. corner - exterior pipe insulation 4cyc Ames. le	Poor	Remove	10 L:
3.1.8 Locker Rm. 12" x 12" Floor tile 5% Cnrysntle	Fair	Remove if demolished	850 S:
3.2 <u>Building #1</u>			
3.2.1 Exterior roof & siding transite (flat & corrugated)	Fair	Remove if demolished	20,000 S:
3.2.2 Material Bldg. 1 in crawlspace adjacent R.R. tracks	Poor	Remove	300 L:
3.3 <u>Building 11</u>			
3.3.1 Exterior roof & siding Transite - flat inside and outside	Poor	Remove	600 S:
3.4 <u>Outside</u>			
3.4.1 Steam line above ground - 8" line	Fair	Remove or repair	1000 L:
3.4.2 Roof drains	Good	Remove if demolished	Underground - unknown
3.5 <u>Power House</u>			
3.5.1 Oil supply line (outside)	Fair	Remove or repair	200 L:
3.5.2 Transite-exterior and interior	Fair	Remove if demolished	20,000 S
3.5.3 Tank, pipe & boiler insulating materials	Fair	Remove or repair	Not calculate
3.5.4 Roof-tank & pipe insulation	Fair to poor	Remove or repair	50 LF & 100 S
3.5.5 Debris on floor throughout boiler room	Poor	Remove & Surface Clean	50 S

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NOTE: All amounts are estimates only and are not intended for bidding purposes. Removal contractors should verify all amounts.

General observations of the Acton facility indicate visual surface contamination present in several areas of the battery separator warehouse and boiler room. Workers should not conduct any dry sweeping or vacuuming in the areas identified unless the work is done utilizing safe and proper asbestos work techniques. The transite and floor tiles found throughout the facility are only minimally friable. They do not represent an immediate hazard unless they are cut, dried or abraded. Hunter recommends these materials be handled in a safe place and proper manner if they are disturbed as previously discussed.

4.0 RECOMMENDATIONS

Stringent laws govern all asbestos activities undertaken in the State of Massachusetts. Hunter suggests the following to ensure compliance with state, federal, or local asbestos regulations and to reduce future liabilities.

NOTE: Massachusetts State Law (453 CMR 6.00) requires certification for all persons involved in asbestos-related work.

- o ACM which is damaged or deteriorated should be repaired and/or removed in an acceptable manner by a properly-trained (certified) individual. As a general guideline removal is the recommended abatement procedure when significant damage such as delamination or deterioration is present over 10% of the material surface. Due to varying factors, this must be evaluated on a case-by-case situation.
- o Any employee whose work may require disturbance of ACM (i.e. plumbers, maintenance workers, etc.) should receive proper training in asbestos work techniques. Massachusetts State Law requires two-day mandatory training for affected individuals.
- o ~~Management~~ should be periodically monitored to ensure ACM integrity remains satisfactory. This should be done by an experienced inspector certified by the State of Massachusetts.
- o Areas where ACM is present in buildings should be noted. Any future renovations or activities which may affect these materials should consider the hazards associated with ACM; proper precautions should be implemented.

The following recommendations pertain to asbestos removal projects.

- An independent consultant should develop a plan or specification to ensure asbestos is removed in a safe and proper manner. At a minimum, these specifications should include an effective asbestos removal plan, a thorough health and safety plan, reference to applicable legal standards, necessary regulatory notifications, adequate insurance requirements and proper bidding procedures.
- An independent consultant should monitor the asbestos removal. At a minimum, monitoring activities should include air sampling (before, during and after), inspection of contractor work practices and maintaining a daily monitoring log to thoroughly document removal activities.

5.0 Conclusion

This survey indicates asbestos-containing materials are found throughout the facility in a variety of building materials. HES recommends these materials be addressed in a safe and proper manner in accordance with all applicable local state and federal regulations.

6.0 GENERAL

Survey performed and written by: Mr. Michael Matilainen

BULK SAMPLE ANALYSIS FOR : W.R. GRACE, ACTON

Date Collected	Sample #	Client	Sample Identification	Composition (Percent)
10/13/88	10/88-1098	W.R. Grace	1 Battery separator Warehouse, Impregnator Ovens, Inside enclosure	26% Chrysotile 20% Fiberglass 60% Fiberglass

10/88-1108

2

Battery Separator Warehouse
Office 12' x 12' tile floor

10% Cellulose
90% Non-fibrous
No asbestos detected

Tan

10/88-1118

3
Battery Separator Warehouse
Office 4' x 2' ceiling tile

90% Cellulose
10% Fiberglass
No asbestos detected

Tan Fibrous

10/88-1120

4
Battery Separator Warehouse
Exterior transite

70% Charcoal
30% Non-fibrous

Grey Fibrous

5

Battery Separator Warehouse
Air Cell Cardboard
adjacent loading dock

90% Cellulose
10% Non-fibrous
No asbestos detected

Grey Fibrous

6
Battery Separator Warehouse
Steel-lock
adjacent loading dock

Cellulose Fibers
is Non-fibrous
Matrix,
No asbestos detected

White Particulate
with Fibers

7

Battery Separator Warehouse
Interior Wall Board
throughout facility

Cellulose Fibers
is Non-fibrous
Matrix, No asbestos detected

No Particulate
with Fibers

Collected by: John Schell
Note: Samples are retained for one year after the date of analysis.

Analyst: John Schell

client's request. They can be retained beyond that time

Date Collected	Master sample / Client	Sample Identification	Composition (Percent)	Comments
10/11/00	10/00-1168 W.R. Grace	8	25% Asbestos 25% Cellulose 50% Non-Fibrous	Brown Particulate with Fibers
10/08-1178	"	9	Battery Separator Warehouse Material below Water Tanks	Black Particulate with Tan Fibers
10/08-1188	"	10	Battery Separator Warehouse Cork Pipe Insulation	Synthetic Fibers No asbestos 60% Non-Fibrous
10/08-1198	"	11	Battery Separator Warehouse 9 X 9 Green Floor Tile In Laboratory	White Fibers No asbestos detected
10/08-1208	"	12	Battery Separator Warehouse Duct Insulation on Installed Impregnator oven	5% Chrysotile 5% Cellulose 90% Non-Fibrous
10/08-1218	"	13	Battery Separator Warehouse Residual or Crowd below Duct of Installed Impreg- nator oven	15% Asbestos 15% Chrysotile 15% Cellulose 55% Non-Fibrous
10/08-1228	"	14	Battery Separator Warehouse Exterior Steelline Insulation S.E. corner - outside	White Particulate with Fibers

Collected by:

*Mark J. Murphy*Analyst: *Laura E. Schleser*

Note: Samples are retained for one year after the date of analysis. They can be retained beyond that time at the client's request.

Sample Identification	Composition (Percent)	Comments
15 Battery Separator Warehouse Black 12 x 12 floor tile in 2nd floor locker room	51 Chrysotile 51 Cellulose 9ct Non-Fibrous	Black Particulate Tile
16 Bldg 1 corrugated Transite, W. Wall	50t Chrysotile 50t Non-Fibrous	Grey Fibrous
17 Bldg. 1 flat Transite, W. Wall	60t Chrysotile 10t Cellulose 30t Non-Fibrous	Grey Fibrous
18 Bldg 1 Paper under Transite, composite E & W wall	90t Cellulose 10t Non-Fibrous No asbestos detected	Grey Fibrous
19 Bldg II Flat Transite S.W wall inside & outside of wall	50t Chrysotile 50t Non-Fibrous	Grey Fibrous
20 Bldg II - 8" steam line elbow and straight composite above garage area	40t Asbestos 60t Non-Fibrous	Raw Particulate with Fibers
21 Bldg II insulation sheets above garage area	Cellulose Fibers In Non-Fibrous Matrix, No asbestos detected	Grey Particulate with Fibers

Analyst: _____
are retained for one year after the date of analysis. They can be retained beyond that time at the

Date Collected	Master Sample #	Client	Sample Identification	Composition (Percent)	Comments
10/13/03	10/08-1308	R.R. Grace	22 Bldg 11 sheetrock on S.G. wall	90% Cellulose 10% Non-Fibrous No asbestos detected	Tan and Grey Fibrous
10/08-1318			23 Building 3 Power House Boiler house Condensate Tank, on roof	30% Asbestos 70% Non-Fibrous	Grey Particulate with Fibers
10/08-1328			24 Exterior Boiler House Corrugated Transite	5% Chrysotile 65% Chrysotile 30% Non-Fibrous	Grey Fibrous
10/08-1338			25 Insulation between Transite walls of boiler room	90% Cellulose 10% Non-Fibrous No asbestos detected	Brown Fibrous

Collected by: Mark J. ZelnerAnalyst: Karen Ekelman

Note: Samples are retained for one year after the date of analysis. They can be retained beyond that time at the client's request.

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